PROJECT PROPOSAL FOR CS 5200

Students are expected to define a project which satisfies all of the following criteria.

- The project must be able to create, read, update and delete data from the chosen database. The executed operations should be driven from user input.
- he user interface for the project may be a simple command line argument project, a web page or a GUI based project. The user interface provides the access to the database and determines the operations that are executed on the data.
- The basic assumption is that your project will use MySQL as your DBMS. If you plan to use a NO SQL database or a different relational database you must specify which database you are using in this proposal. We will work with you to define a corresponding grading rubric for your project. The teaching team will need to approve your NO SQL database choice.
- The project must demonstrate your mastery of the chosen database model (relational, document, key value, columnar etc.)
- The final result is an application that demonstrates your ability to code a system using a database as its storage mechanism as well as your ability to document the system.

The project will consist of the following tasks:

1. A project proposal and the creation of the project group in blackboard (10 points)
2. Database - Back end of project (database schema): Create data schema, export of database (schema, data, functions, procedures, triggers) (25 points)
3. A presentation completed in the last two weeks of class (10 points)
4. A front end (client) that accesses the database and performs all four CRUD operations (create tuples, read tuples, update tuples, delete tuples) (45 points)
5. Final report containing the final conceptual design, logical design, user flow diagram, lessons learned and future work (10 points)

Each task listed above must be completed for the project to be accepted and granted a grade. Once the project group is created in blackboard, only one member of the team needs to submit the proposal to blackboard.

The project accounts for 100 points and is 20% of your final grade. A total of 10 bonus points can be accrued during the completion of the project. For most students, the project is an opportunity to build a database system for a data domain they are interested in.

Task 1: Design a Project and a Team (10 Points)

Create a blackboard group:
Please have one of your group members create a blackboard group. Select the link 'Group' in the leftmost panel, then select Create, then self-enroll group. The group name should contain the last names of the members in the group sorted alphabetically. For example, if Albert Jones and Kate Wall are a group, the group name should be named JonesWall. Make sure you have the other members of the group assigned or "self-enrolled" to the blackboard group. They can either join the group themselves or the creator of the group can add them.
The goal of the project is to allow you to get hands-on experience with a database that is of interest to you. This is the part of the class curriculum that you design.
Submit a project proposal via the blackboard group with the following information:

- The students' names that are the members of the group
- The name of the blackboard group
- A top level description of the project. Briefly describe the data domain and the functionality you plan to provide for the user.
- SQL vs. NO SQL storage
- Software, Apps, Languages, Libraries and hardware that will be used to develop the project. Are there any machine restrictions for the project?
- Why does this project or this data domain interest you?
- A UML diagram of the conceptual design for the database which you will be using for the project. This diagram should contain attributes, entities, relationships, multiplicity, and the primary keys for the entities. You can use any diagramming tool you prefer. One that is freely available is https://creately.com/ . You should plan on using this diagram during your class project presentation as well as in your final project write-up (where it will be graded more strictly and worth more points)
- A brief step by step user interaction of your application. The description should list the steps a user would require to perform in order to use your application. A flow chart is sufficient. For students who know what an activity diagram is, please include an activity diagram INSTEAD OF the steps mentioned above.

If you wish to learn about an activity diagram, here is one good link to read
http://www.sparxsystems.com/resources/uml2_tutorial/uml2_activitydiagram.html

Here is a link of an activity diagram for an order delivery system:
http://www.c-jump.com/CIS75/Week10/images/activity_process_order.png

We believe groups should contain 2 people. If you would like to work in a different sized group please state the reason for the different size in this proposal. We will make every effort to accommodate you.

Please create one cohesive document that contains all of the above listed deliverables. Remember this is a writing exercise, please make every effort to submit a well written proposal. **A zip file with each of the individual pieces is not appropriate.**